IN THE CLAIMS:

Claim 1 has been amended, as follows:

1. (Currently amended) A pulse width modulation amplifier comprising:

an input terminal that receives a signal;

a triangular wave-generating device that generates a triangular wave;

a pulse width modulation amplification device that performs pulse width modulation amplification of the signal input via said input terminal based on the triangular wave generated by said triangular wave-generating device; and

an output terminal that outputs [[he]] the signal subjected to the pulse width modulation amplification by said pulse width modulation amplification device,

wherein said triangular wave-generating device comprises an integrating device that includes an amplifier having a signal input terminal and a signal output terminal, and a capacitance element connected between said signal input terminal and said signal output terminal of said amplifier, a first constant-current device that charges said capacitance element such that an output voltage from said amplifier becomes equal to a first predetermined voltage, by causing a constant current to flow through said capacitance element in a predetermined direction, a second constant-current device that discharges said capacitance element such that the output voltage from said amplifier becomes equal to a second predetermined voltage lower than the first predetermined voltage, by causing a constant current to flow through said capacitance element in a direction opposite to the predetermined direction, a constant-current value-setting device that sets values of the constant currents caused to flow by said first and second constant-current devices, a changing device that changes the values of the constant currents set by said constant-current value-setting device, a first switching device that turns on or off to allow or block flowing

of the constant current caused to flow by said first constant-current device, a second switching device that turns on or off to allow or block flowing of the constant current caused to flow by said second constant-current device, a first comparison device that compares the output voltage from said amplifier and the first predetermined voltage for outputting a signal of a logic level dependent on a result of the comparison, a second comparison device that compares the output voltage from said amplifier and the second predetermined voltage for outputting a signal of a logic level dependent on a result of the comparison, and a flip-flop that inverts a logic level of an output signal therefrom when it is detected by said first comparison device that the output voltage from said amplifier has increased to reach the first predetermined voltage, or when it is detected by said second comparison device that the output voltage from said amplifier has decreased to reach the second predetermined voltage, whereby said first and second switching devices turn on or off, depending the logic level of the output signal from said flip-flop.

2. (Original) A pulse width modulation amplifier as claimed in claim 1, further comprising a clock pulse input terminal that receives a clock pulse externally supplied, and

wherein said constant-current value-setting device includes a phase comparison device that compares a phase of the clock pulse inputted via said clock pulse input terminal and a phase of the output signal from said flip-flop, a current-generating device that generates a current such that a direction of flow thereof and a current value thereof depend on a result of the comparison by said phase comparison device, a low-pass filter that integrates the current generated by said current-generating device, and a control device that controls the constant currents that flow from said first and second constant-current devices, according to an output from said low-pass filter.

3. (Original) A pulse width modulation amplifier as claimed in claim 2, wherein said changing device comprises a second capacitance element that changes a total capacitance of said

low-pass filter, a third switching device that controls whether or not said second capacitance element is to be connected to said low-pass filter, a fourth switching device that controls whether or not an electric charge accumulated in said second capacitance element is to be discharged, and a D-type flip-flop that inverts a logic level of an output signal therefrom in synchronism with a rise of the output signal from said flip-flop, whereby said third and fourth switching devices turn on or off, depending on the logic level of the output signal from said D-type flip-flop.

4. (Original) A pulse width modulation amplifier as claimed in claim 2, wherein said changing device comprises fifth and sixth switching devices that control whether or not values of the current in first and second directions generated by said current-generating device are to be changed, and a D-type flip-flop that inverts a logic level of an output signal therefrom in synchronism with a rise of the output signal from said flip-flop, wherein said fifth and sixth switching devices turn on or off, depending on the logic level of the output signal from said D-type flip-flop.

5. (Original) A pulse width modulation amplifier as claimed in claim 2, wherein said control device comprises an FET having a gate thereof supplied with the output from said low-pass filter and a source thereof connected in series to said first and second resistances connected, said control device controlling a current flowing through a drain thereof according to a level of a source-gate bias thereof to thereby control the constant currents that flow from said first and second constant-current devices, and

wherein said changing device comprises a seventh switching device that controls whether or not said second resistance is to be short-circuited, and a D flip-flop that inverts a logic level of an output signal therefrom in synchronism with a rise of the output signal from said flip-flop, whereby said seventh switching device turns on or off, depending on the logic level of the output

signal from said D flip-flop.

6. (Original) A pulse width modulation amplifier comprising:

an input terminal that receives a signal;

a triangular wave-generating device that generates a triangular wave;

a pulse width modulation amplification device that performs pulse width modulation amplification of the signal input via said input terminal based on the triangular wave generated by said triangular wave-generating device; and

an output terminal that outputs the signal subjected to the pulse width modulation amplification by said pulse width modulation amplification device,

wherein said triangular wave-generating device comprises an integrating device that includes an amplifier having a signal input terminal and a signal output terminal, and a capacitance element connected between said signal input terminal and said signal output terminal of said amplifier, a first constant-current device that charges said capacitance element such that an output voltage from said amplifier becomes equal to a first predetermined voltage, by causing a constant current to flow through said capacitance element in a predetermined direction, a second constant-current device that discharges said capacitance element such that the output voltage from said amplifier becomes equal to a second predetermined voltage lower than the first predetermined voltage, by causing a constant current to flow through said capacitance element in a direction opposite to the predetermined direction, a constant-current value-setting device that sets values of the constant currents caused to flow by said first and second constant-current devices, a changing device that changes the respective values of the constant currents that are caused to flow through said capacitive element in the predetermined direction and the direction opposite to the predetermined direction, a first switching device that is operable when a value of

the constant current caused to flow by said first constant-current device is changed by said changing device, to turn on or off to allow or block flowing of the constant current whose value has been changed, and operable when the value of the constant current caused to flow by said first constant-current device has not been changed by said changing device, to turn on or off to allow or block flowing of the constant current whose value has not been changed, a second switching device that is operable when a value of the constant current caused to flow by said second constant-current device has been changed by said changing device, to turn on or off to allow or block flowing of the constant current whose value has been changed, and operable when the value of the constant current caused to flow by said second constant-current device has not been changed by said changing device, to turn on or off to allow or block flowing of the constant current whose value has not been changed, a first comparison device that compares the output voltage from said amplifier and the first predetermined voltage for outputting a signal of a logic level dependent on a result of the comparison, a second comparison device that compares the output voltage from said amplifier and the second predetermined voltage for outputting a signal of a logic level dependent on a result of the comparison, and a flip-flop that inverts a logic level of an output signal therefrom when it is detected by said first comparison device that the output voltage from said amplifier has increased to reach the first predetermined voltage, or when it is detected by said second comparison device that the output voltage from said amplifier has decreased to reach the second predetermined voltage, whereby said first and second switching devices turn on or off, depending the logic level of the output signal from said flip-flop.

7. (Original) A pulse width modulation amplifier as claimed in claim 6, further comprising a clock pulse input terminal that receives a clock pulse externally supplied, and

wherein said constant-current value-setting device comprises a phase comparison device

that compares a phase of the clock pulse inputted via said clock pulse input terminal and a phase of the output signal from said flip-flop, a current-generating device that generates a current such that a direction of flow thereof and a current value thereof depend on a result of the comparison by said phase comparison device, a low-pass filter that integrates the current generated by said current-generating device, and a control device that controls the constant currents that flow from said first and second constant-current devices, according to an output from said low-pass filter.

8. (Original) A pulse width modulation amplifier as claimed in claim 7, wherein said changing device comprises a third constant-current device disposed for connection in parallel with said first constant-current device, a fourth constant-current device disposed for connection in parallel with said second constant-current device, eighth and ninth switching devices that control whether or not the said third and fourth constant-current devices are to be connected to said first and second constant-current devices, respectively, and a D-type flip-flop that inverts a logic level of an output signal therefrom in synchronism with a rise of the output signal from said flip-flop, whereby said seventh switching device turns on or off, depending on the logic level of the output signal from said D-type flip-flop.

///

///

///

///

///

///

///

///